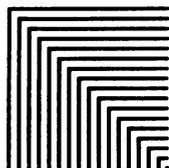
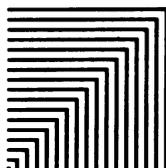
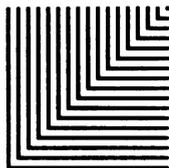
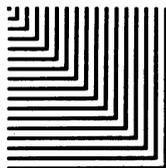


# Operation **MEDIHC**—Texas Pilot Project

*An experience in meshing military allied health workers with civilian health care needs*



THE UNITED STATES was in the midst of severe health manpower shortages in 1969. The shortages were projected to persist into the 1980s. At the same time, some 32,000 men and women with allied health education and experience were leaving the armed services annually. It was against this background that the Secretaries of the Department of Health, Education, and Welfare and the Department of Defense issued memoranda directing that efforts be made to increase the utilization of veteran medics in the civilian health field. The result was a coordinated civilian-military program entitled Operation MEDIHC (Military Experience Directed Into Health Careers). The first 4 years of this effort are the topic of this paper. We used selected data and experiences from the first State MEDIHC program to illustrate results.

## **The Military Medical Complex**

The medical organization of the Department of Defense is a vast complex of educational, research, and medical care institutions which operate through the medical departments of the Army, Navy, and Air Force. These three medical departments are responsible primarily for meeting the health care needs of 10 million persons—military personnel, their dependents, and retired veterans. The three services have more than 200 hospitals plus 400 dispensaries and clinics to fulfill this mission. These facilities are located in the United States as well as in Europe, Southeast Asia, the Far East, the Middle East, and aboard ships. Also, the military medical organization encompasses the largest and most comprehensive system for training medical and other health manpower in the United States.

Veterans who received health-related training and experience while in service have functioned in many different types of military health facilities, most of which have close counterparts in the civilian health care system. Like civilian allied health workers, military allied health personnel provide supportive, supplement-

FAY M. HEMPHILL, PhD, and ALICE B. FRAZER, MSPH

□ *Dr. Hemphill is professor, School of Public Health, University of Texas Health Science Center, and director of Texas Project MEDIHC. Miss Frazer is the National MEDIHC Coordinator, Division of Associated Health Professions, Bureau of Health Resources Development, Health Resources Administration, Department of Health, Education, and Welfare. This paper is based on work supported by PHS contract No. 1-AH-14063 from the Division of Associated Health Professions.*

*Tearsheets requests to Dr. Fay M. Hemphill, School of Public Health, University of Texas Health Science Center, Houston, Tex. 77025.*

tary, and complementary services to the functions of physicians, dentists, and other health professionals. Despite these similarities, veteran medics face formidable barriers, some valid, when they attempt to enter the civilian health care job market.

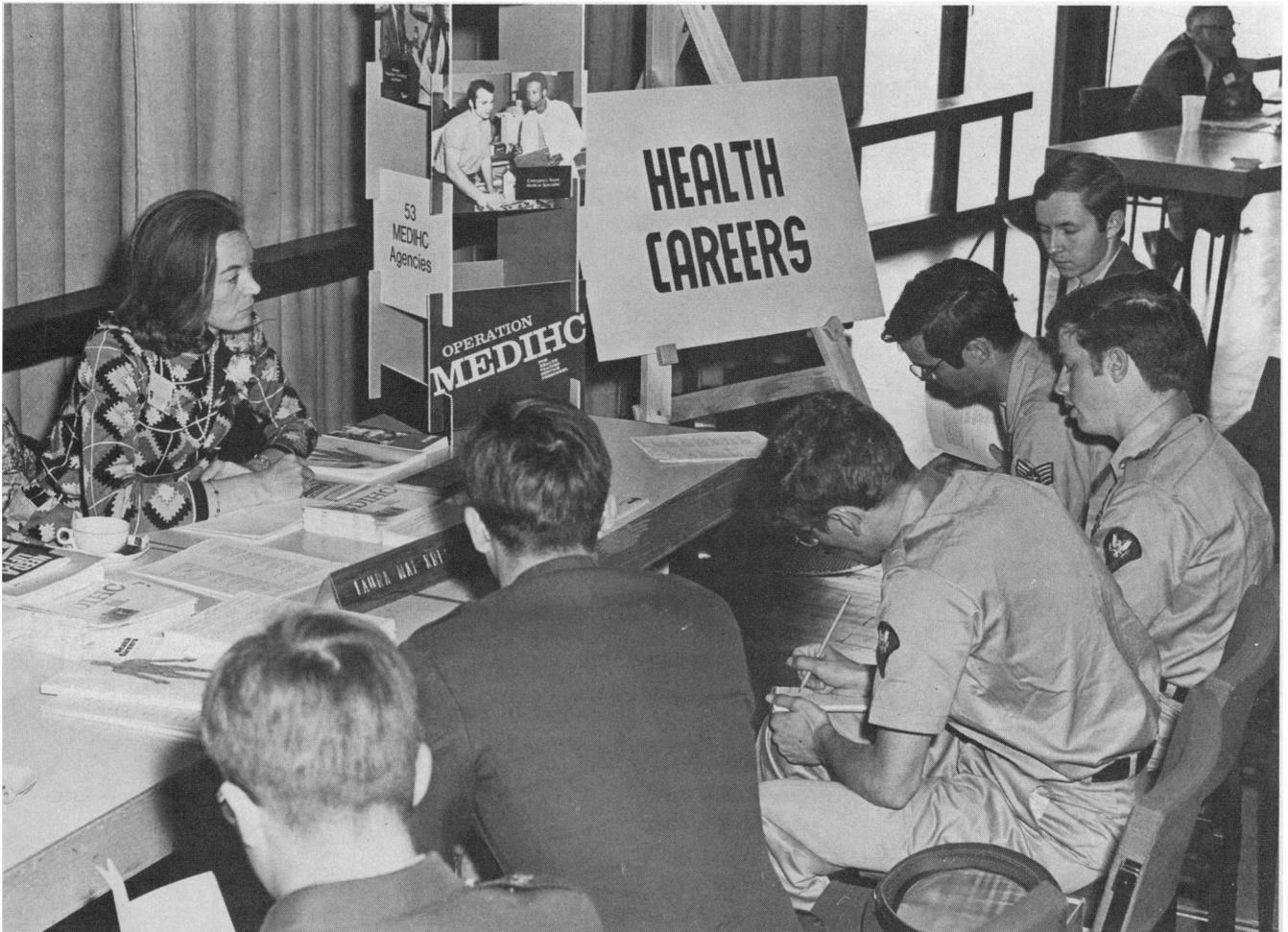
### Characteristics of Medically Trained Veterans

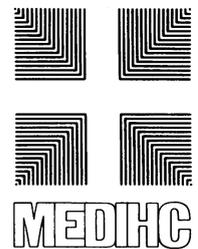
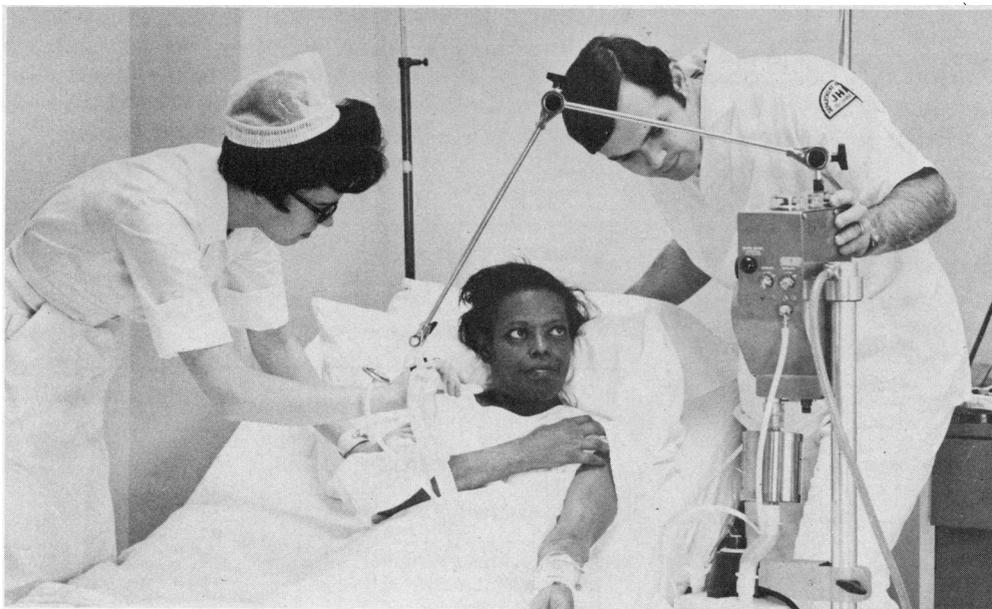
There are two types of medically trained veterans—"careerists," who are typically in their late thirties or forties and have served several terms, during their 20 or more years of service, and "noncareerists," who are in their early twenties and have returned to civilian life after one or two terms of military service.

Career veterans usually have been intensively trained, have had experiences in one or more specialties in the course of their careers, and are likely to have been engaged in medical administrative work during the latter years of their military service. They are, therefore, particularly well suited to supervise technical functions, such as X-ray, laboratory, and pharmacy units or to assist physicians in procedures that require judgment as well as skill; that is, triage, surgery, and emergency care; or to perform administrative duties in ward management, supply, or purchasing. In addition to their particular skills, they are accustomed to taking responsibility and dealing with allied health personnel, as well as with physicians and nurses. Most careerists

are capable of moving into responsible civilian jobs with some orientation to the civilian institution's methods of operations, and they usually perform well. Nationally, only 8 percent of all MEDIHC applicants are careerists.

Noncareer veterans generally have served from 2 to perhaps 6 years in the service. They have completed intensive training for an allied health function, and some have had advanced specialty training. Most have served in military hospitals, and some have had experience in dispensaries and medical stations, on board ships, or in the field. Medics leaving the service who apply to MEDIHC offices are predominantly noncareer, male high school graduates with less than 5 years of service. They are married and have other dependents. Generally, they are unskilled except for their medically oriented specialties which most easily translate into civilian medical care as either nursing or administration, and they are uncredentialed for civilian health employment. To further complicate their situations they are unfamiliar with methods of seeking civilian health employment. These characteristics generally put them in the unfortunate position of being round pegs trying to fit into square holes when it comes to finding jobs and educational opportunities in the civilian health field. Operation MEDIHC was and is an attempt to alleviate this situation by improving the ability of the veteran medic to build on the skills acquired in service.



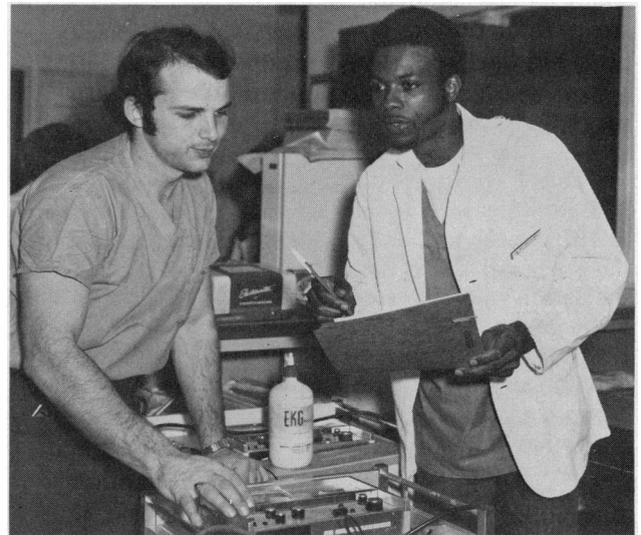


### Operation MEDIHC

The working agreement between the departments specified that the Department of Defense would identify all personnel with medical and dental ratings at least 3 months before separation and inform them about the counseling and referral services provided by Operation MEDIHC. This was carried out by Project TRANSITION on most bases until its termination on May 31, 1974. The Department of Health, Education, and Welfare agreed to promote the establishment of a focal point within each State where medically trained veterans could obtain health career counseling and vocational guidance and be referred to appropriate health employers or to educational programs for health occupations. These focal points, known as State MEDIHC agencies, are funded by contract with the Public Health Service's Division of Associated Health Professions, Bureau of Health Resources Development, Health Resources Administration. Federal funds for the program first became available in June 1971. By the end of June 1972, all States and the District of Columbia had operational MEDIHC programs.

In 14 States, the program is administered by the State hospital association, and in another 14, by the State health department. State employment services administer 9 programs, State universities administer 7, and State health careers councils administer 3. (One MEDIHC agency covered five States.) Technical consultation is provided to the State programs by a regional MEDIHC coordinator in each of the 10 DHEW Regional Offices.

All contracts provide for the vocational guidance and counseling to all veterans who are interested in civilian health care, plus evaluation of the outcomes of MEDIHC services. Elements of the evaluation reflect (a) recruitment of applicants, (b) placement in health jobs or educational programs, or both, (c) lapsed time



between availability of applicants and completion of counseling, and (d) followup of applicants at 6- and 12-month intervals after closing the applicant's file, that is, removing the applicant from the regimen of active counseling.

### Texas Pilot Program

The Texas MEDIHC program, located at the School of Public Health, University of Texas, was the pilot MEDIHC agency and, as such, developed operational guidelines and practices useful to other State MEDIHC programs (7). During this pilot phase, the activity was funded by the Governor's Office of Comprehensive Health Planning. The pilot phase was completed in June 1971.

The essential functions of the Texas program, and of all MEDIHC programs, are recruitment, counseling, and placement. To carry out these functions, the School

**Table 1. MEDIHC caseload, United States and Texas, March 1970–December 1973**

Item	United States	Texas
Total applications . . . . .	36,675	2,873
Total closed cases . . . . .	29,939	2,542
Health-related placements	13,938	1,395
Work full time . . . . .	8,290	910
School full time . . . . .	3,706	416
Work and school . . . . .	1,391	68
Work-training program . . . . .	551	1
Other outcomes:		
Nonhealth placements . . . . .	3,955	441
Re-enlistments . . . . .	492	126
Transferred out of State . . . . .	2,662	86
Unable to locate . . . . .	8,892	494
Total active cases . . . . .	6,736	331
Separated from service . . . . .	5,084	207
Still in service . . . . .	1,652	124

of Public Health, designates a project director who arranges for fulfillment of the contract and provides four counselors based at Fort Sam Houston, William Beaumont Army Medical Center, the University of Texas at Arlington, and the School of Public Health in Houston. The school is the coordinating unit and supplies the supportive staff and services.

Table 1 shows the total MEDIHC caseload for the United States and Texas from the start of the operation in 1970 to the end of 1973. Twelve States carry half of the caseload. Texas has the second largest program in the nation with 7.8 percent of the total caseload and has made 10 percent of all the health-related placements.

While the numbers in the Texas column represent individual applicants, this is not true for the U.S. column, because a person may apply to the MEDIHC agency in more than one State. Thus, the same applicant may appear several times in the statistics for total applications, transfers, unable to locate, and open cases. Therefore, a success rate for the total national program cannot be computed as precisely and in the same fashion as that for one State. (The advantage of "un-duplicating" national files has not warranted the expense.) The Texas rate, based on the ratio of successfully closed cases (health-related placements plus re-enlistments) to total closed cases, is 62 percent, as shown later in this paper. Success rates for the other 50 programs range from 12 to 71 percent.

Table 2 shows the frequencies of placements in jobs or in school of 1,552 applicants to the Texas Project MEDIHC. The data are arranged by broad occupational categories with subgroupings of the more frequent specific classifications. Applicants placed in both jobs and school are not included.

Nearly 1 of every 4 applicants was placed in the nursing field, and about 1 in 10 as a nursing aide, orderly, or attendant. These relatively undemanding jobs are not difficult for veterans to secure; unfortunately they offer a rather bleak future to a head of a household

because of the low rates of pay. Note that the occupation listed in table 2 is not necessarily the occupation of the veteran while in service. For example, none of the three dental placements were dentists, but placements in dental or pre-dental educational programs.

**Table 2. Texas Project MEDIHC placements in health occupations<sup>1</sup> March 1970–June 1974**

Occupation placement	Number in jobs	Number in school	Total	Percent
Total . . . . .	1,062	490	1,552	100.0
Administration . . . . .	122	41	163	10.5
Medical administration technician . . . . .	46	1	47	
Office assistant, secretary, clerk . . . . .	13	1	14	
Other . . . . .	63	39	102	
Biomedical instrumentation . . . . .	25	3	28	1.8
Medical electronics technician . . . . .	10	1	11	
EEG technician . . . . .	4	1	5	
Medical repair mechanic . . . . .	4	1	5	
Other . . . . .	7	0	7	
Dental services . . . . .	16	10	26	1.7
Dental laboratory technician . . . . .	13	5	18	
Dentist . . . . .	0	3	3	
Other . . . . .	3	2	5	
Environmental health . . . . .	35	3	38	2.4
Sanitarian . . . . .	10	0	10	
Other . . . . .	25	3	28	
Laboratory services . . . . .	135	43	178	11.5
Medical laboratory technician . . . . .	68	24	92	
Medical technologist . . . . .	30	13	43	
Medical laboratory assistant aide . . . . .	24	3	27	
Other . . . . .	13	3	16	
Nursing and related services . . . . .	256	112	368	23.7
Nursing assistant, aide, orderly . . . . .	149	10	159	
Registered nurse . . . . .	15	77	92	
Licensed vocational nurse . . . . .	51	21	72	
Medical corpsman, clinical specialist . . . . .	38	4	42	
Other . . . . .	3	0	3	
Physicians and independent practitioners . . . . .	25	35	60	3.9
Physician's assistant . . . . .	17	7	24	
Physician (MD, DO) . . . . .	3	20	23	
Pharmacist . . . . .	5	8	13	
Radiological services . . . . .	56	20	76	4.9
Radiological technologist-technician . . . . .	45	16	61	
X-ray assistant, aide . . . . .	8	3	11	
Other . . . . .	3	1	4	
Other health related professional and technical . . . . .	392	223	615	39.6
Surgical technician . . . . .	61	0	61	
Inhalation therapist-technician . . . . .	41	19	60	
Emergency health technician . . . . .	41	1	42	
Community health worker . . . . .	21	3	24	
Pharmacist assistant, aide . . . . .	16	1	17	
Dietary technician . . . . .	12	2	14	
Physical therapist . . . . .	3	7	10	
Hospital housekeeper . . . . .	14	0	14	
Psychologist . . . . .	1	8	9	
Hospital engineer . . . . .	8	0	8	
Social worker, aide . . . . .	1	7	8	
Other . . . . .	173	175	348	

<sup>1</sup>Excludes 89 persons placed in both a job and an educational program.

**Table 3. Texas MEDIHC caseload by source of referral, January 1–December 31, 1973**

Source of referral	Number	Percent
<b>Total</b> .....	<b>805</b>	.....
Source not known .....	223	.....
Source known .....	582	100
<b>Military TRANSITION program</b> .....	<b>281</b>	<b>48</b>
Texas bases .....	199	34
Other States' bases .....	82	14
<b>Advertisements</b> .....	<b>119</b>	<b>20</b>
Newspaper .....	64	11
Television .....	31	5
Radio .....	24	4
<b>Texas Employment Commission</b> .....	<b>47</b>	<b>8</b>
Friends and relatives .....	44	8
<b>Other State MEDIHC agencies</b> .....	<b>27</b>	<b>5</b>
Miscellaneous sources .....	64	11

The relative frequencies of placements in the various types of jobs are, of course, a reflection of the skills or interests of applicants rather than labor market demands. This is also true, by-and-large, for placements in school, since most of the training undertaken by applicants is in the field in which they were working while in the service. Thus, the fact that only 26 persons were placed in the dental services field is no indication of needs in that field, but only of the number of applicants with some acquired skill or simply an interest in a dental services career.

Generally, the higher the level of the occupation, in terms of responsibility and knowledge required, the higher the percentages of placements in educational programs rather than jobs. This is exemplified in nursing where placement in school accounts for 84 percent of the registered nurse placements, 29 percent of licensed vocational nurse placements, and only 6 percent of the aide, orderly, or assistant placements. An exception to this general pattern is environmental health where few educational placements were made. In this field, however, undergraduate educational programs are rare and credentials often are not required.

The estimated average cost of educating a military medic is \$6,000. Applying this sum to the 1,060 Texas MEDIHC applicants placed in jobs (disregarding those entering school) translates into a conservation of \$6,-300,000 in health manpower preparation over a 4-year period, which exceeds the total cost of the project more than 10-fold. The cost-effectiveness of each State MEDIHC program can be computed and demonstrated similarly.

According to the MEDIHC contract, all State programs carry out a continuing information program targeted to veterans as well as to health employers and health educators. This activity is necessary to supplement the Department of Defense effort to inform all separating medics of Operation MEDIHC services.

Table 3 shows the distribution, by source of referral, of 805 Texas applicants during 1973. Information was obtained from approximately two-thirds (582) of 805 applicants, and less than one-half (281) of these cited the military as the source of information about and referral to Texas Project MEDIHC. Texas Project MEDIHC's publicity activities substantially increased the number of applicants over those referred by the TRANSITION program. Other States have had similar experiences regarding referrals and recruitment.

**Table 4. Texas MEDIHC applicants and closures by year, branch of service, and length of service, 1970–73**

Item	Total applicants	Cases closed <sup>1</sup>	Health-related placements	Percent successful <sup>2</sup>
<b>Total</b> .....	<b>2,873</b>	<b>2,536</b>	<b>1,576</b>	<b>62.0</b>
<b>Year:</b>				
1970 .....	488	279	183	66
1971 .....	724	714	497	70
1972 .....	856	787	482	61
1973 .....	805	756	414	55
<b>Branch of service:</b>				
Army .....	1,440	1,273	753	59
Navy .....	583	523	340	65
Air Force ....	810	711	464	65
Other .....	40	29	19	66
<b>Length of service (years):</b>				
Under 3 .....	636	565	316	56
3–4 .....	557	491	312	64
4–5 .....	576	505	325	64
5–20 .....	342	290	182	63
20 or more ..	713	640	414	65
Not available	49	45	27	60

<sup>1</sup>All cases terminated for any reason, including transfers to other States and "whereabouts unknown."  
<sup>2</sup>Health-related placements as a percent of cases closed.

Table 4 shows Texas MEDIHC applicants by year, branch of service, length of service, and outcome. The data by calendar year show closures, health-related placements, and percent successful within each year. For example, 488 applications were received during 1970; 279 were closed by the end of the year, including 183 health-related placements or 66 percent of 279. (In contrast, table 5 shows eventual outcomes for all applications of the 1972 cohort—that is, all applicants who first became available for placement during that year were followed to closure of their cases.)

The success percentage for annual activities varied from a high of 70 percent in 1970 to 55 percent in 1973. This apparent decrease in success, based only upon health-related placements, has a number of explanations—principally (a) the characteristics of discharged servicemen are changing, (b) unsuccessful closures of cases available in earlier years may be deferred until a later year, (c) MEDIHC's reputation for performance has led people with problem cases to

Table 5. Texas MEDIHC applicants during calendar year 1972, by months, from first availability to successful placement of closure

Months	Number of cases closed	Percent closed		Health related placements	Percent successful	
		Actual	Cumulative		Actual	Cumulative
Total .....	846	100	.....	487	59	.....
Under 1 .....	196	23	23	148	76	76
1-2 .....	177	21	44	116	66	71
2-3 .....	158	19	63	87	55	66
3-4 .....	113	13	76	56	50	63
4-5 .....	66	8	84	26	39	61
5-6 .....	41	5	89	19	46	60
6-7 .....	38	4	93	18	47	60
7-8 .....	13	2	95	6	46	59
8 or more .....	44	5	100	26	59	59

seek help, and (d) perhaps most important, the health job market changed considerably during the period.

Other arrangements of the data identify factors associated with differences in success percentages. For example, tabulations by branch of service and by length of service (table 4) indicate that success was slightly less frequent among those separatees from Army service and even less frequent among those separatees who served less than 3 years.

Table 5 shows, for veterans first becoming available for placement in 1972, the elapsed time to closure for 846 for whom data were available. Sixty-three percent of all cases were closed 3 months after separation, but 11 percent occupied the MEDIHC agency staff for 6 months or more. The success rate shows little variation by time elapsed to closure—but some delays encountered are not related to difficulty of the case, such as intervening vacations of applicants and enforced waiting for the opening of educational institutions. Nevertheless, the relatively high success rates in later months include the solution of many problems, and they are indicative of the sustained effort with applicants that has been characteristic of this program, both in Texas and elsewhere.

Two general observations can be made from the MEDIHC experience. First, most medical veterans are not well prepared for the transition to meaningful civilian health employment, because they lack credentials. This difficulty is compounded because both civilian employers of health care personnel and credentialing agencies are not familiar with the nature and extent of military allied medical education: they see it as concerned primarily with handling conflict casualties and, therefore, inadequate as preparation for providing civilian health care. Second, most MEDIHC applicants have no experience in assembling and presenting a résumé or applying for admission to educational institutions. Moreover, men are frequently confronted with extraordinary barriers when applying for admission to programs in health occupations where students are predominantly women. Even when admitted, many educational institutions are reluctant to

grant equivalency or advanced standing for educational experiences acquired under military auspices.

These conditions and situations have been highlighted for both the military and civilian health sectors at State and national levels through MEDIHC (2). Changes have occurred which are alleviating some of them: for example, (a) schools of nursing admitted a significantly larger number of men during 1973 than in 1970; (b) increasingly, educational institutions now grant advanced standing and use challenge examinations to expedite the civilian health career preparation for ex-medics; (c) college credits and degrees for military training are being granted by some educational institutions; and (d) the number of military allied medical education programs accredited by the American Medical Association has increased sharply (from 9 to 49 from 1970 to 1974).

### Conclusion

Counseling services rendered through the MEDIHC offices have resulted in both challenges and frustrations. The success of the majority of MEDIHC's efforts to assist the veterans into either meaningful health careers or training programs to prepare them for health careers is encouraging. This cooperative program between those in military medicine and civilian medicine has resulted in considerable economy and judicious employment of qualified personnel who might not have elected civilian health work or continued their health occupations education had there been no MEDIHC program. While by no means a panacea, the program has accomplished and continues to fulfill its objectives of increasing the number of veteran medics in civilian health employment and health occupations education.

### References

1. Hemphill, F. M.: Texas gets health personnel via new manpower program. *Texas Med* 68: 51 (1972).
2. McKinley, T.: Strengthening MEDIHC—TRANSITION linkages as viewed by the Army. Proceedings of the First National MEDIHC Conference, Washington, D.C., Mar. 21-23, 1973. DHEW Publication No. (HRA) 74-4. U.S. Government Printing Office, Washington, D.C., 1973, pp. 38-40.